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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09 702,388	10 31 2000	Albert D. Edgar	24012-3	1478

7590 10 23 2002

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EXAMINER

GABOR, OTILIA

ART UNIT	PAPER NUMBER
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2878

DATE MAILED: 10 23 2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/702,388

Applicant(s)

EDGAR ET AL.

Examiner

Otilia Gabor

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 31 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 6) ☐ Other

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-5, 8-14, 17-26, 29, 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edgar (U. S. Patent 6075590) and further in view of Ross et al. (U. S. Patent 3748471).

Edgar discloses an apparatus and method by which the surface defects in a scan of a film containing the image using visible light is corrected by scanning the film containing the image with infrared light. The system comprises:

- a source of visible and infrared light 508 (808) from which both the visible and infrared light are simultaneously irradiating the image storing surface 504 (804) containing a defect 506 (806)
- a camera 510 (810) containing a sensor configured to detect both the infrared and the visible light, which was transmitted (Fig.5) or reflected (Fig.8) through the image storing medium. The first signal is generated from the visible light detected and the second signal is generated from the infrared light detected whereby the second signal is used to modify the first image signal to generate a modified digital representation of the image.

Edgar uses one camera with a sensor adapted to capture the visible and infrared signals and fails to disclose a reflective surface wherefrom either the visible or the infrared light will be reflected and either the infrared or visible light will be transmitted before the signals are detected in the sensor. However, having a configuration which includes two detectors where each of the sensors are adapted to detect one specific type of radiation (i.e., having one sensor detect visible and one detect infrared) or having a configuration where one detector is selectively sensitive to both visible and infrared radiation is a matter of design choice since the end result is the same and thus it would have been obvious to one of ordinary skill in the art to substitute the configuration of Edgar with the one disclosed by Ross et al. In the system of Ross et al. the visible and the infrared light which passed through the object 12 is directed to a reflective surface 62 which reflects the visible light 64 (66) into the sensor 52 (54) adapted to detect visible light and transmits the infrared light into a sensor 70 adapted

to detect infrared light. The optical path of the infrared light is different than the optical path of the visible light and these optical paths can be changed independent of each other (i.e., since one sensor is independent of the other changing the position of one sensor changes the optical path). Thus in the case where two detectors are used to capture the independent specific lights there is a need for a reflecting surface which could either reflect visible and transmit infrared or transmit visible and reflect visible light into the independent detectors.

Regarding claims 3, 12 Edgar and Ross et al. disclose one source which irradiates both visible and infrared light instead of having two sources, however this constitutes only a matter of design choice since it is well known in the art to use different sources for different radiations and since Applicant has not disclosed that having two light sources instead of one solves any stated problems or is for any particular purpose.

Regarding claims 9, 18 and 22 Ross et al. fails to disclose a hot or cold mirror as the reflecting surface, however this constitutes a matter of design choice since hot and cold mirrors are well known and used reflective surfaces in the art.

4. Claims 6, 7, 15, 16, 27, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Edgar and Ross et al. and further in view of Edgar (WO 98/34397).

Edgar and Ross et al. fail to disclose the type of sensor used in the detection of infrared and visible light as including a linear or trilinear CCD array, however as shown by Edgar (WO 98/34397) linear and trilinear CCD arrays are well known to be used in the process of correcting a scanned image of a film containing the image by using

visible and the corrective infrared light. As such, using these CCD arrays constitutes only an obvious matter of design choice.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Nakamura (U. S. Patent 6407829), Borggaard et al. (U. S. Patent 6014222), Nakazawa et al. (U. S. Patent 5319719), Drexler (U. S. Patent 4665004), Young, JR. et al. (US 2001/0052932 A1), Ochiai et al. (US 2001/0035491 A1), Konagaya (US 2002/0056804 A1), Katakura et al. (US 2002/0071141 A1), Katakura et al. (US 2001/0055105 A1), Uchida (US 2002/0001407 A1), Yamaguchi (US 2002/0131649 A1).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Otilia Gabor whose telephone number is 703-305-0384. The examiner can normally be reached on Monday-Friday between 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on 703-308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

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October 9, 2002

*Constantine*  
*HANNAKR*  
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PATENT EXAMINER  
OCT 9 2002